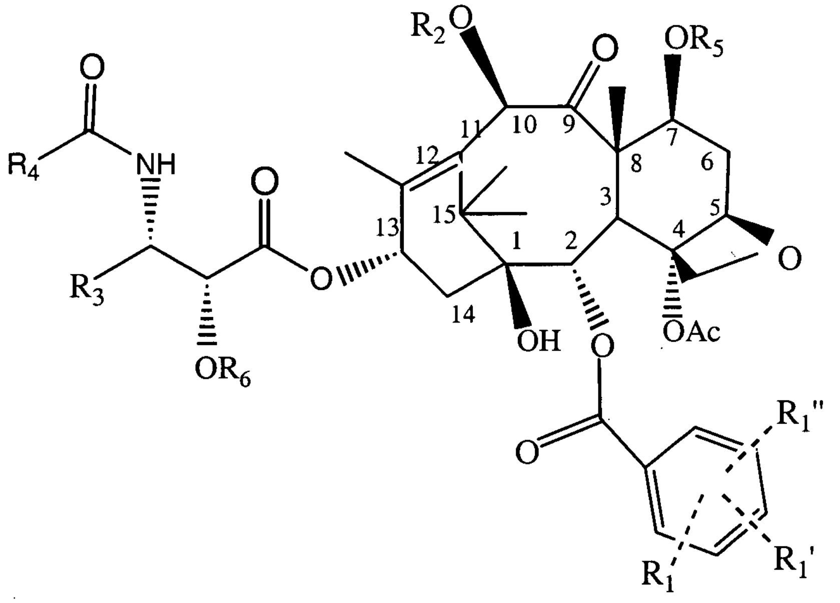
AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

CLAIMS

1. (previously presented): A compound represented by formula (I):



(I)

wherein:

R_1 is H, an electron withdrawing group, or an electron donating group, and R_1' and R_1'' are the same or different, and are H, an electron withdrawing group, or an electron donating group;

R_2 is heterocyclic, a linear, branched, or cyclic ester or ether having from 1 to 10 carbon atoms or a carbamate of the formula $-CONR_{10}R_{11}$, wherein R_{10} and R_{11} are the same or different and are H, linear, branched or cyclic alkyl having 1 to 10 carbon atoms or aryl;

R_3 is aryl, or a linear, branched, or cyclic alkyl having from 1 to 10 carbon atoms;

R_4 is $-OC(CH_3)_3$ or phenyl;

R_5 is a linking group; and

R_6 is heterocyclic, H, a linear, branched, or cyclic ester or ether having from 1 to 10 carbon atoms or a carbamate of the formula $-CONR_{10}R_{11}$, wherein R_{10} and R_{11} are the same or different and are H, linear, branched or cyclic alkyl having 1 to 10 carbon atoms or aryl.

2. (original): The compound of claim 1, wherein R_1 is F, NO_2, CN, Cl, CHF_2, CF_3, $-OCH_3$, $-OCH_2CH_3$, or $-NR_7R_8$, wherein:

R_7 and R_8 are the same or different and are linear, branched, or cyclic alkyl having 1 to 10 carbon atoms or simple or substituted aryl having 1 to 10 carbon atoms.

3. (original): The compound of claim 2, wherein R_7 and R_8 each has 1 to 4 carbon atoms.

4. (original): The compound of claim 2 or 3, wherein R_7 and R_8 are the same.

5. (original): The compound of claim 1, wherein R_2 is $-COC_2H_5$, $-CH_2CH_3$, $-CONHCH_2CH_3$, -CO-morpholino, -CO-piperidino, -CO-piperazino, or -CO-*N*-methylpiperazino.

6. (original): The compound of claim 1, wherein R_5 is a thiol- or disulfide-containing linking group.

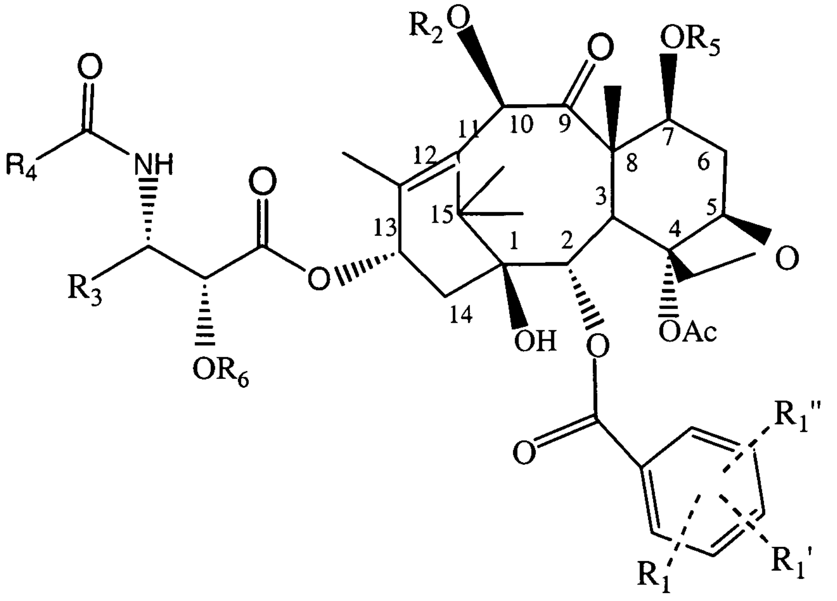
7. (original): The compound of claim 6, wherein R_5 is $-(CH_2)_nSZ$, $-CO(CH_2)_nSZ$, $-(CH_2)_nCH(CH_3)SZ$, $-CO(CH_2)_nCH(CH_3)SZ$, $-(CH_2)_nC(CH_3)_2SZ$, $-CO(CH_2)_nC(CH_3)_2SZ$, $-CONR_{12}(CH_2)_nSZ$, $-CONR_{12}(CH_2)_nCH(CH_3)SZ$, $-CONR_{12}(CH_2)_nC(CH_3)_2SZ$, -CO-morpholino-XSZ, -CO-piperidino-XSZ, -CO-piperazino-XSZ, or -CO-*N*-methylpiperazino-XSZ, wherein

Z is H or SR, wherein R and R_{12} are the same or different and are linear alkyl, branched alkyl or cyclic alkyl having from 1 to 10 carbon atoms, or simple or substituted aryl having from 1 to 10 carbon atoms or heterocyclic, and R_{12} in addition can be H, X is a linear alkyl or branched alkyl having 1-10 carbon atoms, and

n is an integer of 1 to 10.

8. (original): The compound of claim 1, wherein R_1 is in the meta position and R_1' and R_1'' are H.

9. (previously presented): A compound represented by formula (I):



(I)

wherein:

R_1 is H, an electron withdrawing group, or an electron donating group, and R_1' and R_1'' are the same or different, and are H, an electron withdrawing group, or an electron donating group;

R_2 is heterocyclic, linear, branched, or cyclic ester or ether having from 1 to 10 carbon atoms or a carbamate of the formula $-CONR_{10}R_{11}$, wherein R_{10} and R_{11} are the same or different and are H, linear, branched or cyclic alkyl having 1 to 10 carbon atoms or aryl;

R_3 is $-CH=C(CH_3)_2$;

R_4 is $-OC(CH_3)_3$ or phenyl;

R_5 is a linking group; and

R_6 is heterocyclic, H, a linear, branched, or cyclic ester or ether having from 1 to 10 carbon atoms or a carbamate of the formula $-CONR_{10}R_{11}$, wherein R_{10} and R_{11} are the same or different and are H, linear, branched or cyclic alkyl having 1 to 10 carbon atoms or aryl.

10. (original): The compound of claim 9, wherein R_1 is F, NO_2, CN, Cl, CHF_2, CF_3, $-OCH_3$, $-OCH_2CH_3$,- or $-NR_7R_8$, wherein:

R_7 and R_8 are the same or different and are linear, branched, or cyclic alkyl having 1 to 10 carbon atoms or simple or substituted aryl having 1 to 10 carbon atoms.

11. (original): The compound of claim 10, wherein R_7 and R_8 each has 1 to 4 carbon atoms.

12. (original): The compound of claim 10 or 11, wherein R_7 and R_8 are the same.

13. (original): The compound of claim 9, wherein R_2 is $-COC_2H_5$, $-CH_2CH_3$, $-CONHCH_2CH_3$, -CO-morpholino, -CO-piperidino, -CO-piperazino, or -CO-*N*-methylpiperazino.

14. (original): The compound of claim 9, wherein R_5 is a thiol- or disulfide-containing linking group.

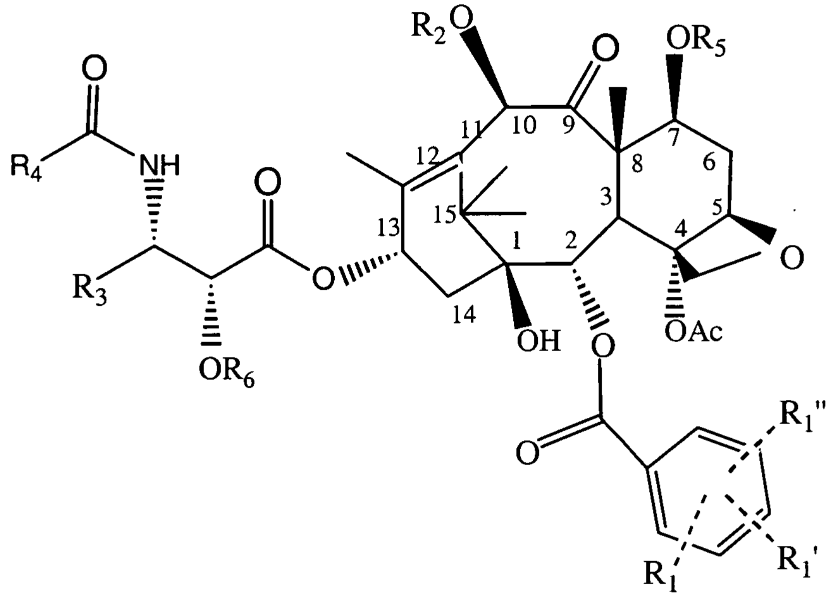
15. (original): The compound of claim 14, wherein R_5 is $-(CH_2)_nSZ$, $-CO(CH_2)_nSZ$, $-(CH_2)_nCH(CH_3)SZ$, $-CO(CH_2)_nCH(CH_3)SZ$, $-(CH_2)_nC(CH_3)_2SZ$, $-CO(CH_2)_nC(CH_3)_2SZ$,

-CONR$_{12}$(CH$_2$)$_n$SZ, -CONR$_{12}$(CH$_2$)$_n$CH(CH$_3$)SZ, -CONR$_{12}$(CH$_2$)$_n$C(CH$_3$)$_2$SZ, -CO-morpholino-XSZ, -CO-piperidino-XSZ, -CO-piperazino-XSZ, or -CO-*N*-methylpiperazino-XSZ wherein

Z is H or SR, wherein R and R$_{12}$ are the same or different and are linear alkyl, branched alkyl or cyclic alkyl having from 1 to 10 carbon atoms, or simple or substituted aryl having from 1 to 10 carbon atoms or heterocyclic, and R$_{12}$ in addition can be H, X is a linear alkyl or branched alkyl having 1-10 carbon atoms, and n is an integer of 1 to 10.

16. (original): The compound of claim 9, wherein R$_1$ is in the meta position and R$_1$' and R$_1$" are H.

17. (previously presented): A compound represented by formula (I):



(I)

wherein:

R_1 is H, an electron withdrawing group, or an electron donating group, and R_1' and R_1'' are the same or different, and are H, an electron withdrawing group, or an electron donating group;

R_2 is a linking group;

R_3 is aryl, or is a linear, branched, or cyclic alkyl having from 1 to 10 carbon atoms;

R_4 is $-OC(CH_3)_3$ or phenyl;

R_5 is heterocyclic, H, a linear, branched, or cyclic ester or ether having from 1 to 10 carbon atoms or a carbamate of the formula $-CONR_{10}R_{11}$, wherein R_{10} and R_{11} are the same or different and are H, linear, branched or cyclic alkyl having 1 to 10 carbon atoms or aryl; and

R_6 is heterocyclic, H, a linear, branched, or cyclic ester or ether having from 1 to 10 carbon atoms or a carbamate of the formula $-CONR_{10}R_{11}$, wherein R_{10} and R_{11} are the same or different and are H, linear, branched or cyclic alkyl having 1 to 10 carbon atoms or aryl.

18. (original): The compound of claim 17, wherein at least one of R_1 is F, NO_2, CN, Cl, CHF_2, CF_3, $-OCH_3$, $-OCH_2CH_3$, or $-NR_7R_8$ wherein:

R_7 and R_8 are the same or different and are linear, branched, or cyclic alkyl having 1 to 10 carbon atoms or simple or substituted aryl having 1 to 10 carbon atoms.

19. (original): The compound of claim 18, wherein R_7 and R_8 each has 1 to 4 carbon atoms.

20. (original): The compound of claim 18 or 19, wherein R_7 and R_8 are the same.

21. (original): The compound of claim 17, wherein R_2 is a thiol- or disulfide-containing linking group.

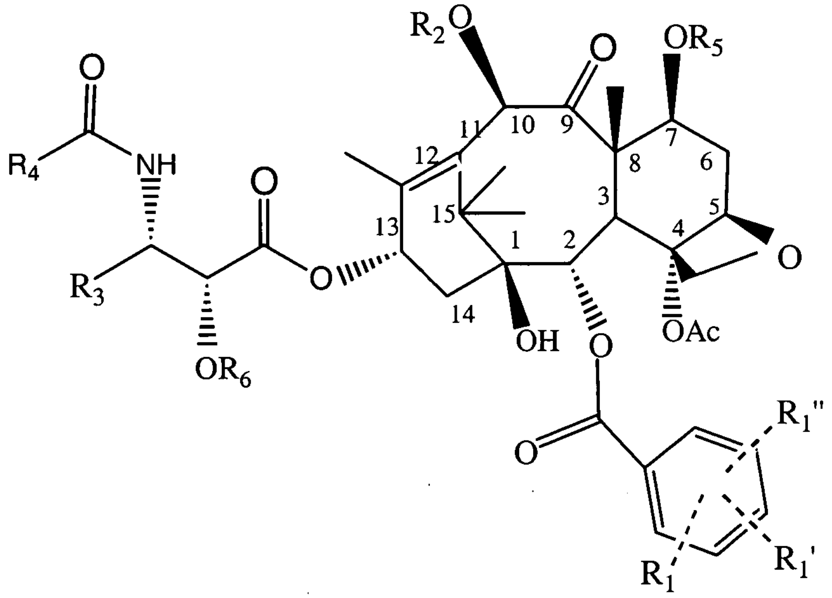
22. (original): The compound of claim 21 wherein R_2 is $-(CH_2)_nSZ$, $-CO(CH_2)_nSZ$, $-(CH_2)_nCH(CH_3)SZ$, $-CO(CH_2)_nCH(CH_3)SZ$, $-(CH_2)_nC(CH_3)_2SZ$, $-CO(CH_2)_nC(CH_3)_2SZ$, $-CONR_{12}(CH_2)_nSZ$, $-CONR_{12}(CH_2)_nCH(CH_3)SZ$, $-CONR_{12}(CH_2)_nC(CH_3)_2SZ$, -CO-morpholino-XSZ, -CO-piperidino-XSZ, -CO-piperazino-XSZ, or -CO-*N*-methylpiperazino-XSZ wherein

Z is H or SR, wherein R and R_{12} are the same or different and are linear alkyl, branched alkyl or cyclic alkyl having from 1 to 10 carbon atoms, or simple or substituted aryl having from 1 to 10 carbon atoms or heterocyclic, and R_{12} in addition can be H, X is a linear alkyl or branched alkyl having 1-10 carbon atoms, and n is an integer of 1 to 10.

23. (original): The compound of claim 17, wherein R_5 is $-COC_2H_5$, $-CH_2CH_3$, $-CONHCH_2CH_3$, -CO-morpholino, -CO-piperidino, -CO-piperazino, or CO-*N*-methylpiperazino.

24. (original): The compound of claim 17, wherein R_1 is in the meta position and R_1' and R_1'' are H.

25. (previously presented): A compound represented by formula (I):



(I)

wherein:

R_1 is H, an electron withdrawing group, or an electron donating group, and R_1' and R_1'' are the same or different and are H, an electron withdrawing group, or an electron donating group;

R_2 is heterocyclic, H a linear, branched, or cyclic ester or ether having from 1 to 10 carbon atoms or a carbamate of the formula $-CONR_{10}R_{11}$, wherein R_{10} and R_{11} are the same or different and are H, linear, branched or cyclic alkyl having 1 to 10 carbon atoms or aryl;

R_3 is aryl, or is a linear, branched or cyclic alkyl having from 1 to 10 carbon atoms;

R_4 is $-OC(CH_3)_3$ or phenyl;

R_5 is heterocyclic, H, a linear, branched, or cyclic ester or ether having from 1 to 10 carbon atoms or a carbamate of the formula $-CONR_{10}R_{11}$, wherein R_{10} and R_{11} are the same or different and are H, linear, branched or cyclic alkyl having 1 to 10 carbon atoms or aryl;

R_6 is a linking group.

26. (original): The compound of claim 25, wherein R_1 is F, NO_2, CN, Cl, CHF_2, CF_3, $-OCH_3$, $-OCH_2CH_3$, or $-NR_7R_8$ wherein:

R_7 and R_8 are the same or different and are linear, branched, or cyclic alkyl having 1 to 10 carbon atoms or simple or substituted aryl having 1 to 10 carbon atoms.

27. (original): The compound of claim 26, wherein R_7 and R_8 each has 1 to 4 carbon atoms.

28. (original): The compound of claim 26 or 27, wherein R_7 and R_8 are the same.

29. (original): The compound of claim 25, wherein R_2 is $-COC_2H_5$, $-CH_2CH_3$, $-CONHCH_2CH_3$, -CO-morpholino, -CO-piperidino, -CO-piperazino, or -CO-*N*-methylpiperazino.

30. (original): The compound of claim 25, wherein R_6 is a thiol- or disulfide-containing linking group.

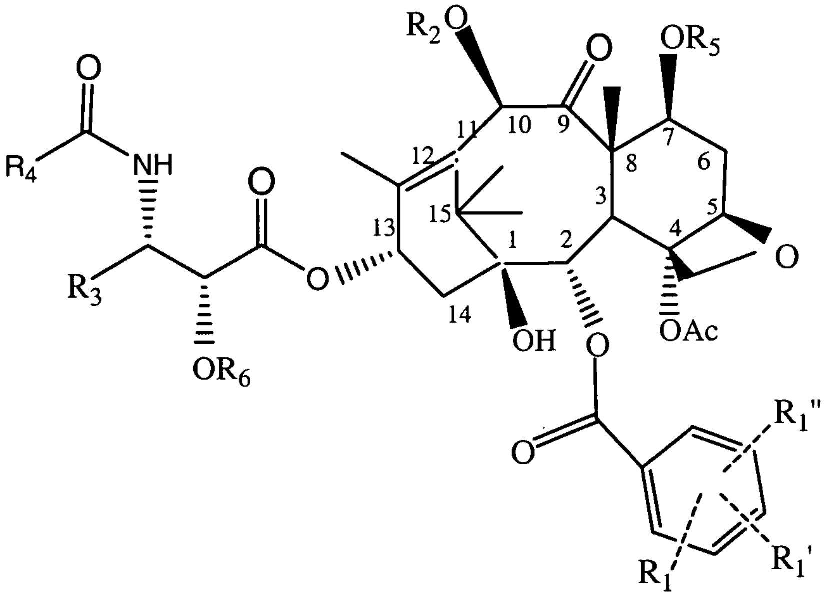
31. (original): The compound of claim 30, wherein R_6 is $-(CH_2)_nSZ$, $-CO(CH_2)_nSZ$, $-(CH_2)_nCH(CH_3)SZ$, $-CO(CH_2)_nCH(CH_3)SZ$, $-(CH_2)_nC(CH_3)_2SZ$, $-CO(CH_2)_nC(CH_3)_2SZ$, $-CONR_{12}(CH_2)_nSZ$, $-CONR_{12}(CH_2)_nCH(CH_3)SZ$, $-CONR_{12}(CH_2)_nC(CH_3)_2SZ$, -CO-morpholino-XSZ, -CO-piperidino-XSZ, -CO-piperazino-XSZ, or -CO-*N*-methylpiperazino-XSZ wherein:

Z is H or SR, wherein R and R_{12} are the same or different and are linear alkyl, branched alkyl or cyclic alkyl having from 1 to 10 carbon atoms, or simple or substituted aryl having from 1 to 10 carbon atoms or heterocyclic, and R_{12} in addition can be H, X is a linear alkyl or branched alkyl having 1-10 carbon atoms, and

n is an integer of 1 to 10.

32. (original): The compound of claim 25, wherein R_1 is in the meta position and R_1' and R_1'' are H.

33. (previously presented): A cytotoxic composition comprising one or more taxanes covalently bonded to a cell binding agent through a linking group, wherein at least one of said taxanes is a compound represented by formula (I):



(I)

wherein:

R_1 is H, an electron withdrawing group, or an electron donating group, and R_1' and R_1'' are the same or different and are H, an electron withdrawing group, or an electron donating group;

R_2 is a heterocyclic, linear, branched, or cyclic ester or ether having from 1 to 10 carbon atoms or a carbamate of the formula $-CONR_{10}R_{11}$; wherein R_{10} and R_{11} are the same or different and are H, linear, branched or cyclic alkyl having 1 to 10 carbon atoms or aryl;

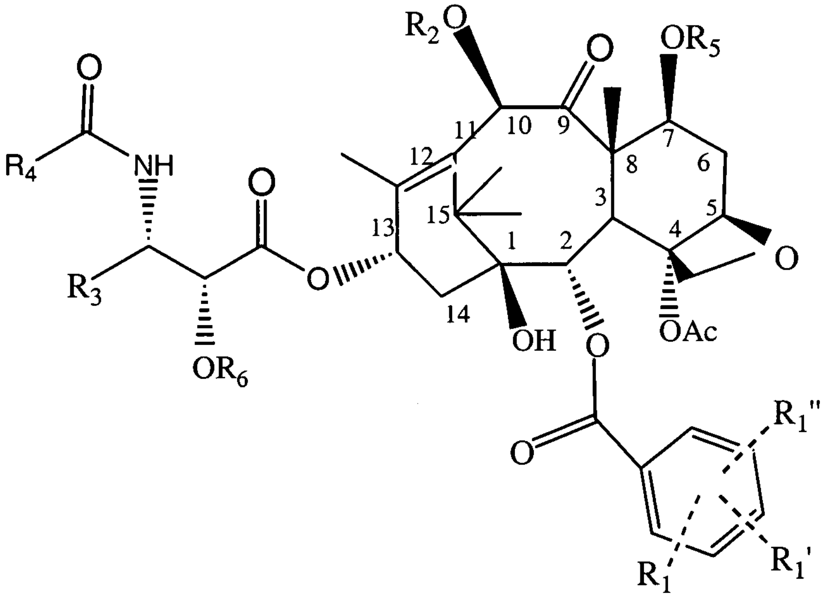
R_3 is aryl, or is a linear, branched, or cyclic alkyl having from 1 to 10 carbon atoms;

R_4 is $-OC(CH_3)_3$ or phenyl;

R_5 is a linking group; and

R_6 is a heterocyclic, H, linear, branched, or cyclic ester or ether having from 1 to 10 carbon atoms or a carbamate of the formula $-CONR_{10}R_{11}$, wherein R_{10} and R_{11} are the same or different and are H, linear, branched or cyclic alkyl having 1 to 10 carbon atoms or aryl.

34. (previously presented): A cytotoxic composition comprising one or more taxanes covalently bonded to a cell binding agent through a linking group, wherein at least one of said taxanes is a compound represented by formula (I):



(I)

wherein:

R_1 is H, an electron withdrawing group, or an electron donating group, and R_1' and R_1'' are the same or different and are H, an electron withdrawing group, or an electron donating group;

R_2 is a heterocyclic, linear, branched, or cyclic ester or ether having from 1 to 10 carbon atoms or a carbamate of the formula $-CONR_{10}R_{11}$, wherein R_{10} and R_{11} are the same or different and are H, linear, branched or cyclic alkyl having 1 to 10 carbon atoms or aryl;

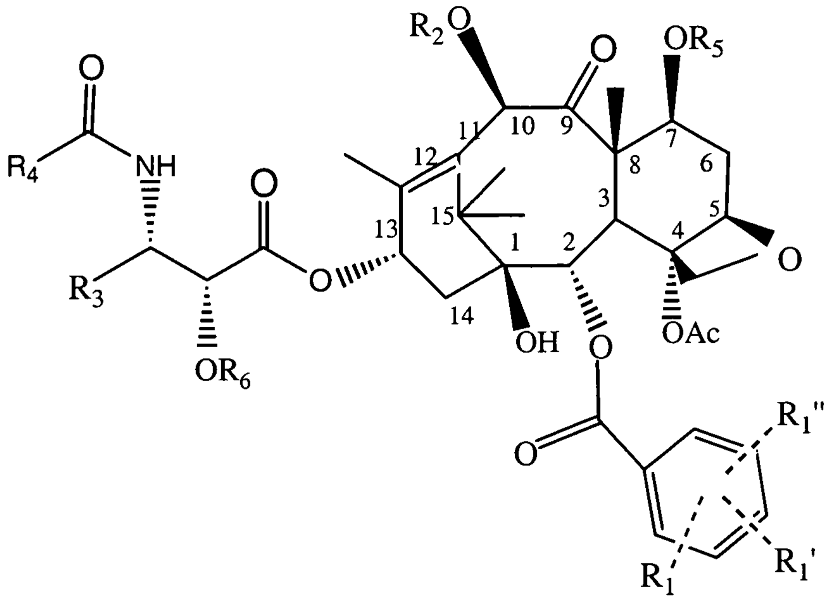
R_3 is $-CH=C(CH_3)_2$;

R_4 is $-OC(CH_3)_3$ or phenyl;

R_5 is a linking group; and

R_6 is heterocyclic, H, a linear, branched, or cyclic ester or ether having from 1 to 10 carbon atoms or a carbamate of the formula $-CONR_{10}R_{11}$, wherein R_{10} and R_{11} are the same or different and are H, linear, branched or cyclic alkyl having 1 to 10 carbon atoms or aryl.

35. (previously presented): A cytotoxic composition comprising one or more taxanes covalently bonded to a cell binding agent through a linking group, wherein at least one of said taxanes is a compound represented by formula (I):



(I)

wherein:

R_1 is H, an electron withdrawing group, or an electron donating group, and R_1' and R_1" are the same or different and are H, an electron withdrawing group, or an electron donating group;

R_2 is a linking group;

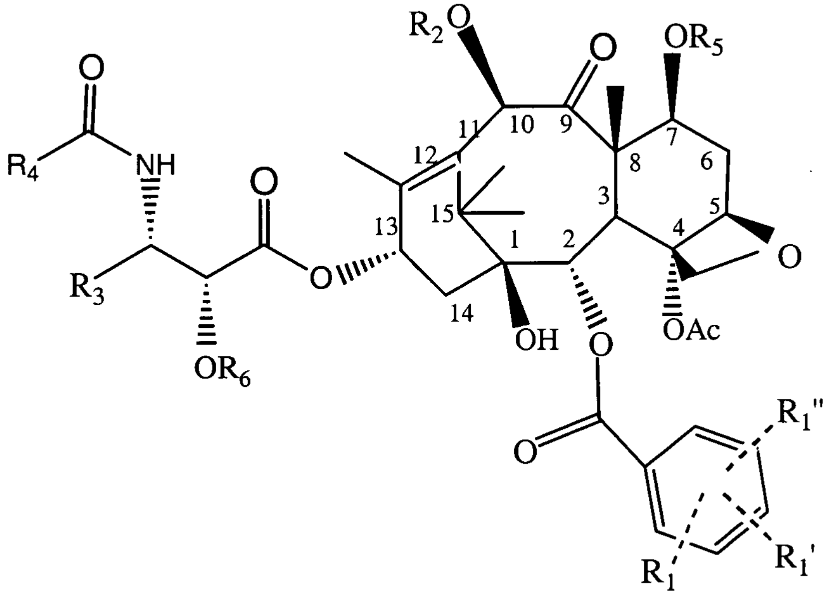
R_3 is aryl, or is a linear, branched, or cyclic alkyl having from 1 to 10 carbon atoms;

R_4 is $-OC(CH_3)_3$ or phenyl;

R_5 is a heterocyclic, H, linear, branched, or cyclic ester or ether having from 1 to 10 carbon atoms or a carbamate of the formula $-CONR_{10}R_{11}$, wherein R_{10} and R_{11} are the same or different and are H, linear, branched or cyclic alkyl having 1 to 10 carbon atoms or aryl; and

R_6 is heterocyclic, H, a linear, branched, or cyclic ester or ether having from 1 to 10 carbon atoms or a carbamate of the formula $-CONR_{10}R_{11}$, wherein R_{10} and R_{11} are the same or different and are H, linear, branched or cyclic alkyl having 1 to 10 carbon atoms or aryl.

36. (previously presented): A cytotoxic composition comprising one or more taxanes covalently bonded to a cell binding agent through a linking group, wherein at least one of said taxanes is a compound represented by formula (I):



(I)

wherein:

R_1 is H, an electron withdrawing group, or an electron donating group, and R_1' and R_1'' are the same or different and are H, an electron withdrawing group, or an electron donating group;

R_2 is heterocyclic, H, a linear, branched, or cyclic ester or ether having from 1 to 10 carbon atoms or a carbamate of the formula $-CONR_{10}R_{11}$, wherein R_{10} and R_{11} are the same or different and are H, linear, branched or cyclic alkyl having 1 to 10 carbon atoms or aryl;

R_3 is aryl, or is a linear, branched or cyclic alkyl having from 1 to 10 carbon atoms;

R_4 is $-OC(CH_3)_3$ or phenyl;

R_5 is heterocyclic, H, a linear, branched, or cyclic ester or ether having from 1 to 10 carbon atoms or a carbamate of the formula $-CONR_{10}R_{11}$, wherein R_{10} and R_{11} are the same or different and are H, linear, branched or cyclic alkyl having 1 to 10 carbon atoms or aryl;

R_6 is a linking group.

37. (previously presented): A therapeutic composition comprising:
a therapeutically effective amount of the cytotoxic composition of any one of claims 33, 34, 35 or 36; and a pharmaceutically acceptable carrier.

38. (previously presented): The cytotoxic composition of any one of claims 33, 34, 35, or 36 wherein the cell binding agent is selected from the group consisting of antibodies, an antibody fragment, interferons, lymphokines, hormones, vitamins, growth factors, colony stimulating factors, and transferrin.

39. (previously presented): The cytotoxic composition of any one of claims 33, 34, 35, or 36 wherein the cell binding agent is an antibody.

40. (previously presented): The cytotoxic composition of any one of claims 33, 34, 35, or 36 wherein the cell binding agent is a monoclonal antibody.

41. (previously presented): The cytotoxic composition of any one of claims 33, 34, 35, or 36 wherein the cell binding agent is an antigen specific antibody fragment.

42. (previously presented): The cytotoxic composition of any one of claims 33, 34, 35, or 36 wherein the antibody fragment is sFV, Fab, Fab', or $F(ab')_2$.

43. (previously presented): The cytotoxic composition of any one of claims 33, 34, 35, or 36 wherein the cell binding agent is a growth factor or colony stimulating factor.

44. (previously presented): A method of inducing cell death in selected cell populations comprising contacting target cells or tissue containing target cells with an effective amount of the cytotoxic composition of any one of claims 33, 34, 35 or 36.

45. (new): The compound of claim 1, wherein R_1 is $-OR_9$ wherein:

R_9 is a linear, branched or cyclic alkyl having 1 to 10 carbon atoms.

46. (new): The compound of claim 9, wherein R_1 is $-OR_9$ wherein:

R_9 is a linear, branched or cyclic alkyl having 1 to 10 carbon atoms.

47. (new): The compound of claim 17, wherein R_1 is $-OR_9$ wherein:

R_9 is a linear, branched or cyclic alkyl having 1 to 10 carbon atoms.

48. (new): The compound of claim 25, wherein R_1 is $-OR_9$ wherein:

R_9 is a linear, branched or cyclic alkyl having 1 to 10 carbon atoms.

49. (new): The compound of claim 33, wherein R_1 is $-OR_9$ wherein:

R_9 is a linear, branched or cyclic alkyl having 1 to 10 carbon atoms.

50. (new): The compound of claim 34, wherein R_1 is $-OR_9$ wherein:

R_9 is a linear, branched or cyclic alkyl having 1 to 10 carbon atoms.

51. (new): The compound of claim 35, wherein R_1 is $-OR_9$ wherein:

R_9 is a linear, branched or cyclic alkyl having 1 to 10 carbon atoms.

52. (new): The compound of claim 36, wherein R_1 is $-OR_9$ wherein:

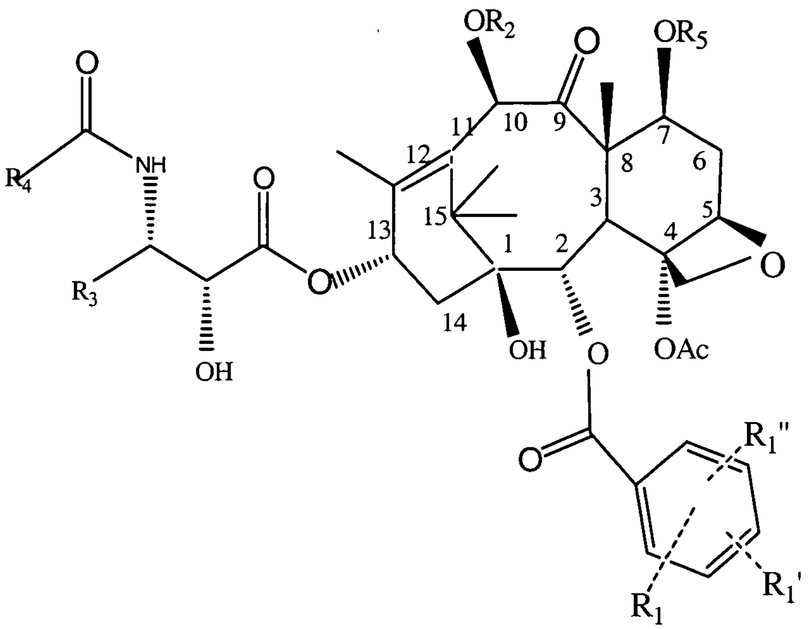
R_9 is a linear, branched or cyclic alkyl having 1 to 10 carbon atoms.

AMENDMENTS TO THE DRAWINGS

Figure 1 of the drawings has been replaced by the Replacement Sheet for Figure 1:

Replacement Sheet

Figure 1.



Compound	R_1	R_2	R_3	R_4	R_5
Paclitaxel (Taxol)	-H	$-COCH_3$	$-C_6H_5$	$-C_6H_5$	H
Docetaxel (Taxotere)	-H	-H	$-C_6H_5$	$-OC(CH_3)_3$	H
More Potent Taxanes	-F	$-COCH_2CH_3$	$-CH_2CH(CH_3)_2$	$-OC(CH_3)_3$	H
	-F	$-COCH_2CH_3$	$-CH{=}C(CH_3)_2$	$-OC(CH_3)_3$	H
	-Cl	$-COCH_2CH_3$	$-CH_2CH(CH_3)_2$	$-OC(CH_3)_3$	H
	$-OCH_3$	$-COCH_3$	$-CH_2CH(CH_3)_2$	$-OC(CH_3)_3$	H